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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/643,748  
Filing Date: August 19, 2003  
Appellant(s): OXMAN ET AL.

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Ann M. Muetting  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 16, 2008 appealing from the Office action mailed April 14, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|           |            |        |
|-----------|------------|--------|
| 3,585,723 | Simor      | 6-1971 |
| 3,565,387 | Neustadter | 2-1971 |

|           |              |        |
|-----------|--------------|--------|
| 4,113,499 | Ivanov et al | 9-1978 |
| 5,487,663 | Wilson       | 1-1996 |
| 5,102,332 | Uthoff       | 4-1992 |
| 3,949,476 | Kahn         | 4-1976 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 39 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387), Ivanov et al (4113499) and Wilson (5487663). Simor shows the method step of selecting an article form 10, column 5, lines 53-55, filling the form with a hardenable material, column 6, lines 21-2, placing the form on a tooth, column 6, lines 26-29, hardening the material, column 1, lines 66-71, cementing to the tooth as shown and reshaping the article form in the subject's mouth, column 6, lines 55-58, and column 8, lines 65-71. Simor does not show using an organic composition. Neustadter shows using an organic composition, column 2, lines 40-48. It would be obvious to one of ordinary skill in the art to modify Simor to use an organic composition as shown by Neustadter in order to make use of known plastics for making a tooth form. The above combination does not show using a composition that contains a surfactant. Ivanov teaches using a surfactant, column 3, lines 4-10, to improve the strength of a disposable mold form. It would be obvious to one of ordinary skill in the art to modify the above combination to include using a composition that includes a surfactant as shown by Ivanov in order to solve the problem of including sufficient strength in a mold form. The above combination does not show the step of

removing the form. Wilson teaches that it is known to use a crown form as part of the final crown as taught by Simor, or in the alternative, to remove the form, see the Abstract of Wilson. It would be obvious to one of ordinary skill in the art to modify the above combination to include removing the form as taught by Wilson in order to make use of known alternatives in the art to obtain the desired final dental article. To use a curable or non-curable plastic is an obvious matter of choice in well known plastics to one of ordinary skill in the art.

Claims 45, 46, 48-55, 58 and 60-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663). Simor shows the method steps of selecting an article form 10, column 5, lines 53-55, having a reservoir as shown and comprising a plastic composition, column 3, line 71, in the form of a self-supporting structure as shown and being sufficiently malleable to be reshaped, column 6, line 11, filling the form with a hardenable material, column 6, lines 21-25, placing the form on a tooth, column 6, lines 26-29, hardening the material, column 1, lines 66-71, cementing to the tooth as shown and reshaping the article form in the subject's mouth, column 6, lines 55-58, and column 8, lines 65-71. Simor shows using plastic, however, does not show using an organic composition. Neustadter shows using an organic composition, column 2, lines 40-48. It would be obvious to one of ordinary skill in the art to modify Simor to use an organic composition as shown by Neustadter in order to make use of known plastics for making a tooth form. The above combination does not show the step of removing the form. Wilson teaches

that it is known to use a crown form as part of the final crown as taught by Simor, or in the alternative, to remove the form, see the Abstract of Wilson. It would be obvious to one of ordinary skill in the art to modify the above combination to include removing the form as taught by Wilson in order to make use of known alternatives in the art to obtain the desired final dental article. As to claim 46, see removing upon completion at column 4, lines 47-56 of Wilson. As to claims 48 and 49, Simor and Neustadter fail to show using a filler material. Wilson teaches using a filler, column 4, lines 40-45. It would be obvious to one of ordinary skill in the art to modify the above combination to include a filler material as shown by Wilson in order to add strength. The same citation also teaches the option of not using a filler. As to claim 51, Neustadter teaches using a curable composition, column 2, lines 40-48. As to claim 52, to use an initiator with a curable composition is very well known. As to claims 53 and 54, to use a non-curable plastic is an obvious matter of choice in well known plastics to one of ordinary skill in the art.

Claims 47 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Ivanov et al (4113499). The above combination does not show using a composition that contains a surfactant. Ivanov teaches using a surfactant, column 3, lines 4-10, to improve the strength of a disposable mold form. It would be obvious to one of ordinary skill in the art to modify the above

combination to include using a composition that includes a surfactant as shown by Ivanov in order to solve the problem of including sufficient strength in a mold form.

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Uthoff (5102332). The above combination does not show using a package. Uthoff teaches using a package 2. It would be obvious to one of ordinary skill in the art to modify the above combination to include a package as shown by Uthoff in order to ship and protect the article.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simor (3585723) in view of Neustadter (3565387) and Wilson (5487663) as applied to claim 45 above, and further in view of Kahn (3949476). The above combination does not show a handle removed from the base. Kahn teaches using a handle 18, column 2, lines 29-34, that as shown, is removed from the base. It would be obvious to one of ordinary skill in the art to modify the above combination to include a handle as shown by Kahn in order to better manipulate the article in the mouth.

Claims 39 and 42-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-54, 56-73, 75 and 79-88 of copending Application No. 10/219,398 in view of Neustadter (3565387). The claims of the '398 application teach using an organic composition that

is self-supporting and malleable, however, do not show using a form that is capable of being filled. Neustadter teaches using a form that is capable of being filled. It would be obvious to one of ordinary skill in the art to modify the '398 claims to include a form as shown by Neustadter in order to obtain the desired size and shape. To include a reservoir of material would have been obvious in order to supply the needed filling material. The specific material used is an obvious matter of choice in known plastics to the skilled artisan. To use a handle would have been obvious to one of ordinary skill in the art in order to better manipulate the form. Shaping in the mouth is well known for making adjustment to reconstructive work in the mouth.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **(10) Response to Argument**

A. With respect to the combination of Simor in view of Neustadter, Wilson, and Ivanov, see for example, independent claim 39, appellant argues that none of the cited documents teach or suggest reshaping in the mouth after filling the reservoir, that Simor does not teach a crown form or the reshaping thereof, instead, the reference teaches the reshaping of a crown per se while dental cement is between the crown and the tooth stump, column 6, lines 55-58 and column 8, lines 65-71. Appellant further argues that the cement taught by Simor is not a hardenable material that forms a dental article upon removal of the form that shapes the dental article. This argument is pointing out the difference between Simor and the present invention, that the form 10, Fig. 5, of Simor remains on the filling material 27, Fig. 9, and therefore, the cement 27



of Simor is not a hardenable material that forms the dental article. This argument is disagreed with because the claim language calls for filling the reservoir with hardenable dental material which is clearly shown in Fig. 9 of Simor, cement being a hardenable dental material, and shows after filling the reservoir, the dental article "form" is reshaped, (note: appellant is arguing that the material is reshaped after the form is removed, however, as claimed in the last two lines of claim 39, it is the form that is reshaped. Simor is held to properly show in Fig. 9, reshaping the dental article form 10, and further, also shows the reshaping the hardenable dental material within the form. Also, with respect to the step of removing the dental article form from the article, the claims do not given any specific chronology with respect to the other steps in the claims, and further, this step is addressed in the combination with the patent to Wilson, which in the last two lines of the Abstract, clearly teaches that it is an art known alternative to remove a form or not.

Appellant further argues that while the reference to Neustadter does show a form for a dental article and teaches using organic compositions, column 2, lines 45-47, and teaches a hardness of about 70, there is no enabling disclosure of an organic composition that is itself self-supporting and malleable. As support for this holding, appellant argues that Neustadter includes a slot, see Fig. 1, and column 2, lines 11-16, that by pressing the edges together to partially or even fully close the slot the required amount to fit the form into the space between the adjacent teeth, and therefore, Neustadter requires a physical means, the slot, to change the shape. During prosecution, the examiner pointed to the statement made by Neustadter, column 2,

lines 52-55, that the reference teaches the plastic as being pliable and retains its modified shape, that is, it is malleable as claimed. Appellant argues that this teaching of Neustadter refers to the "plastic pattern", and is not specific to the organic composition being malleable, instead this malleable feature comes from the slot. As such, it is summarized that there is no enabling teaching in Neustadter that the organic composition is both self-supporting and malleable as claimed. The argument is disagreed with because, with respect to self-supporting, it is noted that in the actual claim language this is used to limit the dental article form, see first three lines of claim 39, and is not specific to the organic composition itself, however, it is held that Neustadter clearly shows a self-supporting dental article form as claimed. With respect to malleable, it is held that one of ordinary skill in the art reading the disclosure of Neustadter would understand that the material used must be malleable, for example, the teaching that after pressing the edges together, the form retains its modified shape, could only happen if the material the form is made from is malleable material, otherwise it would spring back to its original shape. Therefore, it is held, that the teaching of Neustadter, in particular, the cited teaching of column 2, lines 52-55, does teach one of ordinary skill in the art the use of a malleable material. Appellant further argues that Neustadter does not show reshaping in the mouth after filling the reservoir, however, it is held that Simor, and therefore the combination, does show this feature as stated above.

Appellant further argues that Ivanov, which was applied to show a mold form including a surfactant, is nonanalogous art because it is directed to molds used in the

foundry industry, a completely different technology area and used for a completely different purpose, and there is no suggestion to use such molds in a dental method. This argument is disagreed with because while Ivanov is directed to a different art than dentistry, one of ordinary skill in the art of using dental molds would be knowledgeable of materials and properties of molds in general, and would realize that art in the dental field such as Neustadter would require properties to allow for self-supporting as shown. Further, Ivanov teaches that the surfactant improves the mold making it exhibit a higher bending strength, and as such, teaches how to solve the problem of providing a mold with sufficient strength.

B. With respect to at least independent claims 45, 58, 65 and 66, appellant repeats the arguments made above with respect to Simor, Neustadter and Wilson, note these claims do not require the surfactant and are broader than claim 39, and therefore, Ivanov has not been applied. It is held that these arguments have been properly addressed and responded to above.

C. With respect to dependent claims 47 and 59 where the surfactant has been added, and therefore, the rejection includes Ivanov as in claim 39 above, appellant repeats the argument made for claim 39. It is held that this argument has been properly addressed and responded to above.

D. With respect to the rejection of claim 56, which depends from claim 45 (Simor in view of Neustadter and Wilson), and used the additional reference to Uthoff to show the use of packaging. Appellant argues that because Simor in view of Neustadter and Wilson do not show the limitations as argued before, and Uthoff does not teach or

suggest a form that is reshaped while in the subject's mouth, the combination fails to meet the claim. This argument is disagreed with because of the reasons as stated above with respect to Simor in view of Neustadter and Wilson.

E. With respect to the rejection of claim 57 which depends from claim 45 (Simor in view of Neustadter and Wilson) and further adds Kahn, appellant argues that because Simor in view of Neustadter and Wilson do not show the limitations as argued before, and Kahn does not teach or suggest a form that is reshaped while in the subject's mouth, the combination fails to meet the claim. This argument is disagreed with because of the reasons as stated above with respect to Simor in view of Neustadter and Wilson.

F. With respect to the rejection of the claims under the judicially created doctrine of obvious-type double patenting over the claims of application 10/219,398 in view of Neustadter, appellant argues that the combination is not obvious for the same reasons that Neustadter cannot be used to make the above rejections obvious. This argument is disagreed with for the same reasons as made above with respect to Neustadter.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 3732

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/John J Wilson/

Primary Examiner, Art Unit 3732

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/Cris L. Rodriguez/

Supervisory Patent Examiner, Art Unit 3732

/Tom Hughes/

TQAS, TC 3700